

U.S. Patent Application Serial No. 09/509,449
Amendment dated December 7, 2006
Reply to Final Office Action of June 6, 2006

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Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1-17. (Canceled)

18. (Previously presented) A method for determining the presence of Hepatitis C virus (HCV) core antigen and anti-HCV core antibodies in a sample, at the same time, in the same vessel, using (1) antibodies for the detection of HCV core antigen and (2) at least one peptide for the detection of core antibodies wherein the at least one peptide lacks epitopes recognized by said antibodies for detection of HCV core antigen, comprising the steps of:

(a) contacting the sample (1) with an antibody or antibodies for detection of HCV core antigen and (2) with the at least one peptide for detection of the anti-HCV core antibodies, and

(b) detecting (1) the HCV core antigen by an antibody or antibodies for detection of the HCV core antigen, and (2) the anti-HCV core antibodies;

wherein said antibodies for detection of HCV core antigen are selected from antibodies recognizing and binding to a region from position 100 to position 130 or from position 41 to 50 of HCV core antigen.

19. (Canceled).

20. (Previously presented) The method according to claim 18, wherein said antibodies for detection of HCV core antigen are antibodies recognizing and binding to a region from position 100 to position 130 of HCV core antigen.

21. (Currently amended) The method according to claim 18, wherein said sample is contacted with said antibodies for detection of HCV core antigen and said at least one peptide in the presence of one or more detergents with one or more alkyl chains of at least 10 carbon atoms

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and one or more secondary to quaternary amines, or one or more non-ionic surfactants with an HLB value of 12 to 14 ~~or at the concentration of 0.5% or greater, or both.~~

22. (Previously presented) The method according to claim 21, wherein said detergent alkyl chain has 12 to 16 carbon atoms and said secondary to quaternary amine is a tertiary or quaternary amine.

23. (Currently amended) A method for determining the presence of Hepatitis C virus (HCV) core antigen and anti-HCV core antibodies in a sample, at the same time, in the same vessel, using (1) antibodies for the detection of HCV core antigen and (2) at least one peptide for the detection of core antibodies wherein the at least one peptide lacks epitopes recognized by said antibodies for detection of HCV core antigen, comprising the steps of:

(a) contacting the sample (1) with an antibody or antibodies for the detection of HCV core antigen and (2) with the at least one peptide for detection of the anti-HCV core antibodies, and

(b) detecting (1) the HCV core antigen by an antibody or antibodies for detection of the HCV core antigen, and (2) the anti-HCV core antibodies;

wherein said sample is contacted with said antibodies for detection of HCV core antigen and said at least one peptide in the presence of one or more detergents with one or more alkyl chains of at least 10 carbon atoms and one or more secondary to quaternary amines, or one or more non-ionic surfactants with an HLB value of 12 to 14 ~~or at the concentration of 0.5% or greater, or both.~~

24. (Previously presented) The method according to claim 23, wherein said detergent alkyl chain has 12 to 16 carbon atoms and said secondary to quaternary amine is a tertiary or quaternary amine.

25. (Previously Presented) A method for determining the presence of Hepatitis C virus (HCV) core antigen and anti-HCV core antibodies in a sample, at the same time, in the same vessel, using (1) antibodies for the detection of HCV core antigen and (2) at least one peptide for

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the detection of core antibodies wherein the at least one peptide lacks epitopes recognized by said antibodies for detection of HCV core antigen, comprising the steps of:

(a) contacting the sample (1) with an antibody or antibodies for the detection of HCV core antigen and (2) with the at least one peptide for detection of the anti-HCV core antibodies, and

(b) detecting (1) the HCV core antigen by an antibody or antibodies for detection of the HCV core antigen, and (2) the anti-HCV core antibodies.

26. (Previously Presented) The method according to claim 25, wherein said antibodies for detection of HCV core antigen are selected from antibodies recognizing and binding to a region from position 100 to position 130 or from position 41 to 50 of HCV core antigen.

27. (Previously Presented) The method according to claim 25, wherein said antibodies for detection of HCV core antigen are antibodies recognizing and binding to a region from position 100 to position 130 of HCV core antigen.

28. (Currently Amended) The method according to claim 25, wherein said sample is contacted with said antibodies for detection of HCV core antigen are said at least one peptide in the presence of one or more detergents with one or more alkyl chains of at least 10 carbon atoms and one or more secondary to quaternary amines, or one or more non-ionic surfactants with an HLB value of 12 to 14 ~~or at the concentration of 0.5% or greater, or both.~~

29. (Previously Presented) The method according to claim 28, wherein said detergent alkyl chain has 12 to 16 carbon atoms and said secondary to quaternary amine is a tertiary or quaternary amine.

30. (New) The method according to claim 18, wherein said sample is contacted with said antibodies for detection of HCV core antigen and said at least one peptide in the presence of one or more detergents with one or more alkyl chains of at least 10 carbon atoms and one or more

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secondary to quaternary amines, or one or more non-ionic surfactants with an HLB value of 12 to 14 and a concentration of 0.5 % or greater.

31. (New) The method according to claim 30, wherein said detergent alkyl chain has 12 to 16 carbon atoms and said secondary to quaternary amine is a tertiary or quaternary amine.

32. (New) The method according to claim 23, wherein said sample is contacted with said antibodies for detection of HCV core antigen and said at least one peptide in the presence of one or more detergents with one or more alkyl chains of at least 10 carbon atoms and one or more secondary to quaternary amines, or one or more non-ionic surfactants with an HLB value of 12 to 14 and a concentration of 0.5% or greater.

33. (New) The method according to claim 32, wherein said detergent alkyl chain has 12 to 16 carbon atoms and said secondary to quaternary amine is a tertiary or quaternary amine.

34. (New) The method according to claim 28, wherein said sample is contacted with said antibodies for detection of HCV core antigen are said at least one peptide in the presence of one or more detergents with one or more alkyl chains of at least 10 carbon atoms and one or more secondary to quaternary amines, or one or more non-ionic surfactants with an HLB value of 12 to 14 and a concentration of 0.5% or greater.

35. (New) The method according to claim 34, wherein said detergent alkyl chain has 12 to 16 carbon atoms and said secondary to quaternary amine is a tertiary or quaternary amine.

36. (New) A method for determining the presence of Hepatitis C virus (HCV) core antigen and anti-HCV core antibodies in a sample, at the same time, in the same vessel, using (1) antibodies for the detection of HCV core antigen and (2) at least one peptide for the detection of core antibodies wherein the at least one peptide lacks epitopes recognized by said antibodies for detection of HCV core antigen, comprising the steps of:

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(a) containing the sample (1) with an antibody or antibodies for detection of HCV core antigen and (2) with the at least one peptide for detection of the anti-HCV core antibodies, and

(b) detecting (1) the HCV core antigen by an antibody or antibodies for detection of the HCV core antigen, and (2) the anti-HCV core antibodies;

wherein said antibodies for detection of HCV core antigen are selected from antibodies for detection of HCV core antigen and said at least one peptide in the presence of one or more detergents with one or more alkyl chains having 12 to 16 carbon atoms and one or more tertiary or quaternary amines, or one or more non-ionic surfactants with an HLB value 12 to 14.

37. (New) A method for determining the presence of Hepatitis C virus (HCV) core antigen and anti-HCV core antibodies in a sample, at the same time, in the same vessel, using (1) antibodies for the detection of HCV core antigen and (2) at least one peptide for the detection of core antibodies wherein at least one peptide lacks epitopes recognized by said antibodies for detection of HCV core antigen, comprising the steps of:

(a) containing the sample (1) with an antibody or antibodies for detection of HCV core antigen and (2) with the at least one peptide for detection of the anti-HCV core antibodies, and

(b) detecting (1) the HCV core antigen by an antibody or antibodies for detection of the HCV core antigen, and (2) the anti-HCV core antibodies;

wherein said antibodies for detection of HCV core antigen are selected from antibodies recognizing and binding to a region from position 100 to 130 or from position 41 to 50 of HCV core antigen,

wherein said sample is contacted with said antibodies for detection of HCV core antigen and said at least one peptide in the presence of one or more detergents with one or more alkyl chains having 12 to 16 carbon and one or more tertiary or quaternary amines, or one or more non-ionic surfactants with an HLB value of 12 to 14 and a concentration of 0.5% or greater.

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38. (New) The method according to claim 36, wherein said antibodies for detection of HCV core antigen are antibodies recognizing and binding to a region from position 100 to position 130 of HCV core antigen.

39. (New) The method according to claim 37, wherein said antibodies for detection of HCV core antigen are antibodies recognizing and binding to a region from position 100 to position 130 of HCV core antigen.

40. (New) A method for determining the presence of Hepatitis C virus (HCV) core antigen and anti-HCV core antibodies in a sample, at the same time, in the same vessel, using (1) antibodies for the detection of HCV core antigen and (2) at least one peptide for the detection of core antibodies wherein at least one peptide lacks epitopes recognized by said antibodies for detection of HCV core antigen, comprising the steps of:

(a) containing the sample (1) with an antibody or antibodies for detection of HCV core antigen and (2) with the at least one peptide for detection of the anti-HCV core antibodies; and

(b) detecting (1) the HCV core antigen by an antibody or antibodies for detection of the HCV core antigen, and (2) the anti-HCV core antibodies;

wherein said sample is contacted with said antibodies for detection of HCV antigen and said at least one peptide in the presence of one or more detergents with one or more alkyl chains having 12 to 16 carbon atoms and one or more tertiary or quaternary amines, or one or more non-ionic surfactants with an HLB value of 12 to 14.

41. (New) A method for determining the presence of Hepatitis C virus (HCV) core antigen and anti-HCV core antibodies in a sample at the same time, the same vessel, using (1) antibodies for the detection of HCV core antigen and (2) at least one peptide for the detection of core antibodies wherein the at least one peptide lacks epitopes recognized by said antibodies for detection of HCV core antigen, comprising the steps of:

(a) containing the sample (1) with an antibody or antibodies for detection of the HCV core antigen, and (2) the anti-HCV core antibodies;

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wherein said sample is contacted with said antibodies for detection of HCV core antigen and said at least one peptide in the presence of one or more detergents with one or more alkyl chains having 12 to 16 carbon atoms and one or more tertiary or quaternary amines, or one or more non-ionic surfactants with an HLB value of 12 to 14 and a concentration of 0.5% or greater.